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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/549,803

09/19/2005

Hiroyuki Fujii

8051-1035

7879

466

7590

10/04/2006

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EXAMINER

LE, HOANGANH T

ART UNIT

PAPER NUMBER

2821

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/549,803

Applicant(s)

FUJII ET AL.

Examiner

HoangAnh T. Le

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

Hoanganh Le  
Primary Examiner

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 9/19/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention.

See MPEP § 2173.05(d).

In claim 4, is "the feeding point" (line 2) the same with "the second feeding point" of claim 1?

Regarding claims 8 and 14, the phrase "assuming that" is indefinite.

In claim 9, "the first elements" and "the first feeding points" have no antecedent basis.

Regarding claim 15, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 15, the phrase "or the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

In claim 15, the use of "or" renders the claim alternative.

In claim 15, what is meant by "the pattern is printed is affixed"?

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 10 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawaguchi et al (the US patent No. 3771159).

Regarding claim 1, the Kawaguchi et al reference teaches in figure 3 a vehicular antenna which is a line antenna provided on a surface of a window glass or a surface of an insulating member of a movable body such as a vehicle, the vehicular antenna comprising: a first element 3 extended from a first having a length of either 1/4, 3/4 or 5/4 of a feeding point and wavelength of transmission and reception radio wave (col. 1,

lines 60-62) ; and a second element 2 formed into a closed loop which extended from a second feeding point provided in the vicinity of the first feeding point so as to surround the first element, and having an inherent length equal to or longer than one wavelength of the transmission and reception radio wave (col. 3, lines 1-5).

Regarding claim 10, wherein the second element 2 is formed into a closed loop of a polygonal or arc-like shape (figure 3).

Regarding claim 15, the antenna elements 2 and 3 are directly printed on a surface of a window glass of the vehicle (figure 1 and col. 1, lines 25-35).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 2-4, 6-9 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawaguchi et al (cited above) in view of Taniguchi et al (the US patent No. 5,793,333).

Regarding claims 2 and 9, the Kawaguchi et al reference teaches every feature of the claimed invention, excluding the first element including: a first linear portion extending close to a closed loop line of the second element with a length of  $1/8$  or shorter of the wavelength of the transmission and reception radio wave for a capacity coupling; and a second linear portion extending from a distal end of the first linear

portion a direction in which the second linear portion a first linear portion extending close to extends away from the second element.

The Taniguchi et al reference teaches in figure 1 a first element 20 including: a first linear portion extending close to a closed loop line of the second element 30 with a length of  $1/8$  or shorter of the wavelength of the transmission and reception radio wave for a capacity coupling; and a second linear portion extending from a distal end of the first linear portion a direction in which the second linear portion a first linear portion extending close to extends away from the second element in order to improve the reception sensitivity (col. 2, lines 8-9). Figure 19 shows a plurality of the first elements. Since one of ordinary skill in the art would recognize the benefit of improving the reception sensitivity of the antenna, it would have been obvious to provide Kawaguchi et al with the first element including: a first linear portion extending close to a closed loop line of the second element with a length of  $1/8$  or shorter of the wavelength of the transmission and reception radio wave for a capacity coupling; and a second linear portion extending from a distal end of the first linear portion a direction in which the second linear portion a first linear portion extending close to extends away from the second element as taught by Taniguchi.

Regarding claims 3,4,6-8, and 11-14, it would have been an obvious matter of design choice to have a portion spaced apart along a linear portion extended from the second feeding point of the second element by  $1/4$  of the wavelength of the transmission and reception radio wave being provided apart from an opposite end portion to the first feeding point of the first element by  $1/32$  or longer of the wavelength;

or feeding point for the second element formed into the closed loop being provided at a distal end of a leading line along the closed loop, and the length of the leading line being  $1/4$  or shorter of the wavelength of the transmission and reception radio wave; or the length of the linear portion of the closed loop of the second element is  $(1+n/2)$  ( $n$  is an integer of 0 to 6), since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art.

***Allowable Subject Matter***

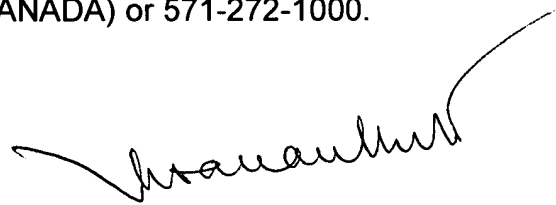
8. Claim 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: none of the cited art discloses a metallic terminal is placed on at least one of the first feeding point and the second feeding point, and either one the feeding points or the metallic terminal is placed close to either the other of the feeding points or the metallic terminal.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HoangAnh T. Le whose telephone number is (571) 272-1823. The examiner can normally be reached on 8:00am-4:30pm.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Hoanganh Le  
Primary Examiner